



## InGaAs PIN Photodiode

Type: PDS123-CSA-C0202

### FEATURES:

- ◆ Planar semiconductor design and dielectric passivation
- ◆ 3-pin coaxial streamline packaging ,SM pigtail with SC/APC connector
- ◆ Superior noise and photoelectric performance
- ◆ Hermetical packaging and 100% purge burn-in
- ◆ Applied for optical fiber communication system, analog CATV application.

### ELECTRO-OPTICAL CHARACTERISTICS(T=25°C):

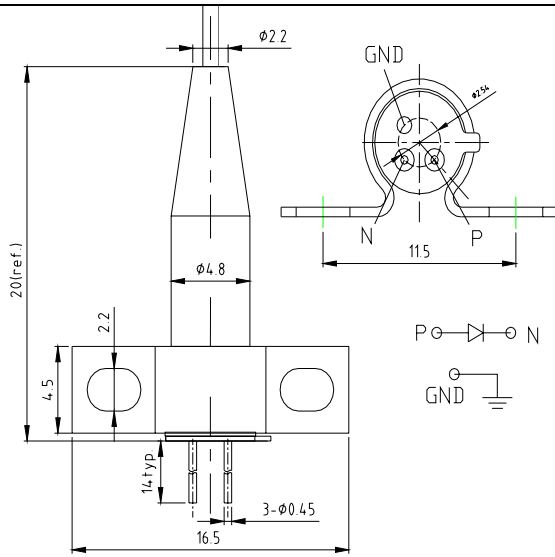
PARAMETERS	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Wavelength	$\lambda$		1000		1650	nm
Dark Current	$I_D$	$E_e=0, V_R=5V$		0.2	0.5	nA
Responsivity	$R_e$	$V_R=5V, \lambda=1310nm$	0.85	0.90		A/W
Responsivity	$R_e$	$V_R=5V, \lambda=1550nm$	0.90	0.95		A/W
Capacitance	$C$	$f=1MHz, case grounded V_R=5V E_e=0$		0.45	0.65	pF
Second order inter-modulation distortion	IMD2	$f_1=400MHz, P_1=-3dBm; f_2=450.25MHz, P_2=-3dBm; f_1+f_2=850.25 MHz. V_R=12V MI=40%. P_{avg}=0dBm. R_{load}=50 \Omega$			-70	dBc
Operating voltage	$V_{opr}$			-5	-15	V
Back Reflection	RL				-40	dB
Frequency Responsibility	BW	$V_R=5V, 50 \Omega$ load with lead length=6mm, case open	2.5			GHz

### ABSOLUTE MAXIMUM RATINGS(T=25°C):

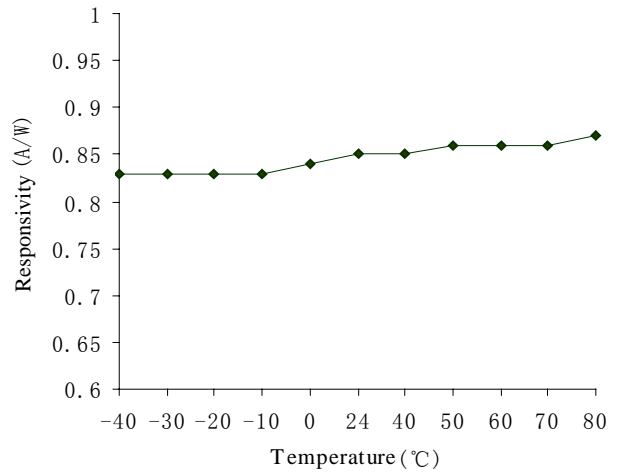
PARAMETERS	MIN	MAX	UNIT
Reverse Voltage		25	V
Input optical power		10	dBm
Reverse Current		5	mA
Forward Current		10	mA
Operating Temperature	-40	+85	°C
Storage Temperature	-40	+85	°C
Lead Solder Temperature		260	°C
Lead soldering duration		10	s
Fiber yield strength		1	kgf
Fiber bend radius	30		mm
Length of pigtail	1.0		m

### PRECAUTIONS:

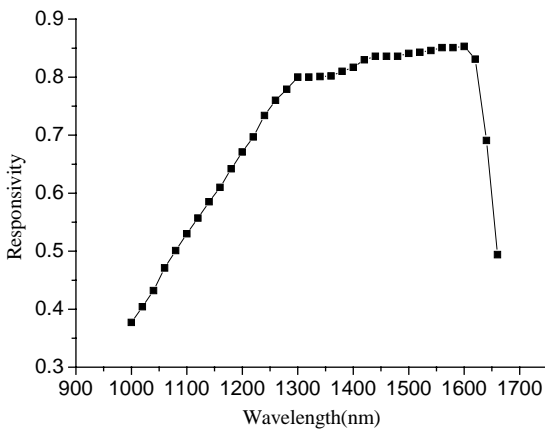
- a ESD protection is imperative.
- b Please shorten the length of the devices leads as much as possible.



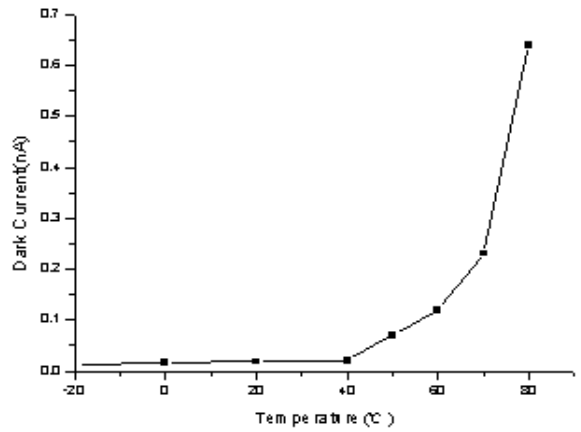
**Package Dimensions**



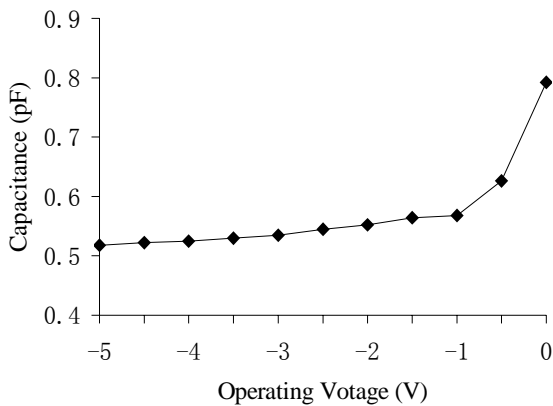
**Responsivity-Temperature Curve**



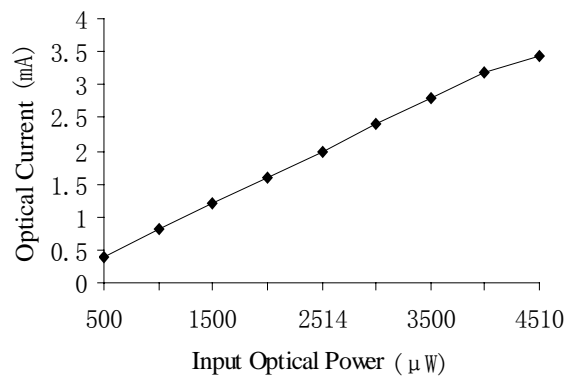
**Spectrum Curve**



**Dark Current-Temperature Curve**



**Capacitance-Voltage Curve**



**Current-Optical Power Curve**